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Some aspects of the schooling behaviour of fish

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the social instinct in animals. "There are many behaviours that are not part of some instinct. They are part of a system of centres controlling behaviour, and when it strives to be in the neighbourhood of some goal when performing some, or all, of these behaviours" (WATSON, 1951, p. 112). MOYNIHAN and WATSON (1951) found that *Lonchura punctulata* show appetitive behaviour when isolated and also that these

8. A single *Pristella* prefers a school of unoperated *Pristella* to a school with amputated dorsal fins. The dorsal fin with its conspicuous black patch is jerked more

rapidly after alarm. This structure and its special movement may be considered a social releaser.

9. Increased feeding motivation leads to limited dispersal of a school of *Gasterosteus*. The head-down feeding posture is a signal attracting others in a school to a source of food.

10. Alarm causes an increase in density of a school of *Gasterosteus*.

11. With increasing reproductive motivation male *Gasterosteus* cease schooling and try to hold territories. Females disperse to a limited extent.

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